Ambient Air Monitoring Plan
Parcel E Hunter's Point Shipyard

In response to the Navy's request on September 7, 2000 ambient air sampling was established around the perimeter of Parcel E. The sampling is designed to measure compounds potentially being emitted from the landfill area in Parcel E at where a fire occurred on August 16, 2000.

Current Sampling Plan

Six ambient air-monitoring stations were established in Parcel E on Friday, September 8, 2000. These stations were sited along the Parcel E perimeter between 6th Avenue to the east and the edge of the parcel at Palaou and Crisp Avenues to the west. PUF, TSP, and SUMMA samplers are collocated at each of these stations.

The PUF ambient air samplers were setup, calibrated and began sampling on Friday. This first PUF sample will be analyzed for pesticides, PCBs, SVOCs, and low-resolution dioxin/furans. Six total suspended particulate ambient air monitors for metals and six mass flow controller SUMMA samplers for VOCs were setup and calibrated on Saturday September 9, 2000. Additionally, sampling for chloride, hydrogen chloride and chlorine gas is being arranged to start by Friday September 15, 2000 at each monitoring station. The methods and date sampling started for each suite of compounds are listed in the attached Table 1. Results are expected to be available for the first samples on Monday, September 18, 2000.

Dioxin/Furan Sampling

There are two methods available for sampling and analyzing for dioxin and furans: high resolution and low resolution. The high-resolution method TO-09 requires the use of a separate PUF sampler than the one used for the Pesticide/PCB and SVOC samples. The 10-day turn around high-resolution method is able to achieve a detection limit of 2×10^{-6} micrograms/sample for 2,3,7,8 TCDD.

The low-resolution method does not require a separate PUF sampler and uses the same PUF that is analyzed for Pesticides/PCBs and SVOCs. The 5-day turnaround low-resolution method is able to achieve a detection limit of 5×10^{-4} micrograms/sample for 2,3,7,8 TCDD.

The US EPA Region IX Preliminary Remediation Goal (PRG) for 2,3,7,8 TCDD in air is 4.5×10^{-8} ug/m^3. The 2,3,7,8 TCDD detection limit based on 320 m^3 sample volume for the low resolution method is 1.56×10^{-6} ug/m^3 and for the high resolution method is 6.25×10^{-9} ug/m$^{3.}$

Recommended Sampling Plan

The recommended sampling plan for Parcel E is based on the approved methodology in the Parcel B Perimeter Air Sampling Plan (PAMP). The current sampling program described above will be continued for at least 10 days until results for 5 days of sampling have been received. These results will be evaluated and compared to the action levels listed in the PAMP to determine if daily monitoring for certain suites of compounds can be reduced to every 2 or 3 days. As the first 10 days of monitoring results become available, further reduction of sampling requirements may be proposed at that time.

If compounds are detected at or above action levels, monitoring will continue on a daily basis. For compounds that are detected for which action levels have not been established in the PAMP, the results would be compared to Ambient Air PRGs. If the level does not exceed the PRG, then monitoring would be reduced to every three days. If the level exceeds the PRG, daily monitoring would continue until site specific action levels could be developed. Once site specific action levels for the compound are developed the monitoring frequency would be determined as specified in the PAMP.

Because of the complexity involved in high-resolution dioxin sampling, the low-resolution dioxin analysis should continue. However, at least one day of high-resolution dioxin sampling at each of the six monitoring stations will be conducted as soon as possible. This sampling will be continued every 8 days after the initial sample to establish a rolling sampling schedule. High-resolution dioxin sampling should also be conducted when storms are forecasted because the wind changes direction from west to south. A southerly wind potentially directs contaminants from the fire area to the residences due north of Parcel E. During normal summer weather patterns the winds blow from the west and potential contaminants are directed away from the residences to the west and north of Parcel E.

The low resolution data should be evaluated as it is received to see if additional high resolution dioxin monitoring is warranted based on trends in the results or detections of classes of dioxins with high 2,3,7,8 TCDD equivalency factors.

Days during which work (e.g. excavation) is being conducted at the landfill site, sampling should be conducted for all of suites of compounds listed in the attached Table 1. High resolution dioxin monitoring is also recommended during the first three days of any excavation activities in the landfill area.

A collocated 7^{th} sampling station will be established at one of the six stations for obtaining a duplicate sample for QA/QC purposes as outlined in the PAMP.

Table 1

Compounds	Method	Start Date
Pesticides	TO4A	9/8/00
PCBs	TO4A	9/8/00
SVOCs	TO13A	9/8/00
VOCs	TO14A	9/9/00
Metals (TSP)	IO 2.1, 3.1 and 3.5	9/9/00
Dioxin/Furan (low resolution)	M TO-09	9/9/00
Dioxin/Furan (high resolution)	TO-09	9/18/00
Choride/Hydrogen Chloride/Chlorine	SW-846 method 0050	9/15/00